

Appl. No. 09/848,002
Amdt. dated September 2, 2005
Reply to Office Action of May 10, 2004

Remarks

The present amendment responds to the final Official Action dated July 25, 2005. The Official Action rejected claims 1-3, 6-9, 12, 13, 16, 19, and 20 under 35 U.S.C. §103(a) based on Walker et al. U.S. Patent No. 6,567,787(Walker). Claims 4, 5, 10, 11, 14, 15, 17, and 18 were rejected under 35 U.S.C. §103(a) based on Walker in view of Green International Publication WO 97/13229 (Green). These grounds of rejection are addressed below following a brief discussion of the present invention to provide context.

Claims 1-3, 6-11, 13, 16, 17, and 19-20 have been amended to be more clear and distinct. In particular, these claims have been amended to further clarify that different retail performance metrics correspond to multiple different types of events occurring in a single transaction. Claims 1-20 are presently pending.

The Present Invention

Among its several aspects, the present invention provides methods and apparatus for tracking individual retail performance metrics occurring within a single transaction at a point of sale terminal. A particular retail performance metric (RPM), for example, the time a system waits for or spends scanning a product, weighing a product, keying input to the POS terminal, or the like, is recorded. The particular RPM is determined based on the type of input received by the system, depending on whether the input received is related to scanning a product, weighing a product, keying input to the POS terminal, or the like. An RPM record, including the time and type of input received, is stored in a transaction log associated with an individual transaction

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entry and/or time type category. For each input received during a transaction, a separate RPM record is stored in the transaction log allowing multiple and different RPMs to be tracked within the transaction.

By way of example, an overall transaction in accordance with the present invention may include several different operations performed by a cashier who services a customer purchasing multiple items at a POS station. For example, some items may have attached bar codes for scanning by the POS station while other items, such as produce items, may require weighing by the POS station. Produce or items with defective bar codes may require the cashier to key in certain data. Each of the scanning events, weighing events, and keying events would result in separate RPM records being recorded in a transaction log and associated with a record defining the transaction. The tracking of these RPM records results in decomposing the overall transaction into subtasks of a finer level of detail. This finer level of detail advantageously helps identify deficiencies and potential problems at the POS station. For example, a record of a series of scans requiring an inordinate amount of time may indicate a scanner which needs cleaning or repair whereas, in conventional systems, an increase in overall transaction time would merely indicate a problem without indicating the specific area of a problem. Further, in conventional systems, a particularly efficient cashier might achieve an overall transaction time that hid a particular problem by being more efficient than average on a number of subtasks.

In one aspect, the present invention relates to a computer implemented method of tracking a plurality of retail performance metric records for different types of events within a transaction and recording a transaction entry record. The method receive inputs for a plurality of different

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types of events occurring at a point of sale (POS) station during a transaction, wherein the types of events occurring at the POS station comprise scan operations, weighing operations, key operations, or tender operations. The method further records retail performance metric records for the plurality of different types of events, each retail performance metric record associating an event type and a time related to performance of the event. Moreover, the method associates the retail performance metric records with a transaction entry record and records the transaction entry record indicative of the transaction. The transaction entry record associates multiple retail performance metrics for at least two different types of events occurring within the transaction.

Interview Summary

The Examiner is thanked for the courtesy of a telephone interview concerning the above case on August 30, 2005. In the telephone call, the Examiner's response to arguments was clarified. In discussing Walker, Applicants' attorney explained that Walker tracks whether prompts spoken by a clerk were spoken properly and that the statistics shown in Fig. 3 are roll-up statistics accumulated over multiple transactions. Consequently, unlike the present invention, Walker does not provide a means for tracking events within a transaction. Applicants' attorney suggested an amendment to claim 1, in concept, to clarify that multiple different events are tracked within a single transaction.

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The Examiner believes that new issues arise from such an amendment. The Examiner agreed to act on a properly filed response after final. However, no agreement on the proposed amendment was reached.

The Art Rejections

As addressed in greater detail below, Walker and Green do not support the Official Action's reading of them and, in light of the present amendment, the rejections based thereupon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of Walker and Green made by the Official Action.

Claims 1-3, 6-9, 12, 13, 16, and 19-20 were rejected under 35 U.S.C. §103(a) based on Walker. Walker describes a method and apparatus for determining whether a verbal message was spoken during a transaction at a point of sale terminal. To this end, Walker's system includes visually or aurally prompting a cashier to speak a verbal message. The visual prompt is given through a screen and the aural prompt is given through a speaker. Walker's system also receives an audio signal via a microphone or similar device to record the operator. Using speech recognition, Walker's system determines whether the spoken audio signal properly corresponds to the prompt. Walker, col. 2, lines 4-13.

In Walker's system, conventional databases such as a prompt database, an operator database, an inventory database, and a transaction database are utilized to store various prompts, operator information, inventory information and transaction information. Walker, col. 5, lines 24-27 and Fig. 2. The transaction database in Walker's system includes a plurality of records

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such as record 500 of Fig. 5, where each record defines a different transaction. Walker, col. 6, 53-57. Turning to transaction record 500 of Fig. 5, several fields are illustrated which describe what data is acquired during the transaction. The time field 506 identifies when the transaction occurred. The item fields 510, 512, and 514 contain the item identifier, description, price, and quantity to be purchased. See also Walker, Fig. 16. Although Walker addresses what items are purchased in a transaction, the transaction database used in Walker's system does not address tracking multiple retail performance metric records for at least two different types of events such as time spent scanning, weighing, keying, and tendering within a single transaction.

In stark contrast, the present invention tracks a plurality of retail performance metric (RPM) records for different types of events within a transaction. (emphasis added) More particularly, for each input received in a transaction, such as an input resulting from a scan operation, a weighing operation, a key operation, or a tender operation, an RPM record is recorded. The stored records are associated for each event of a plurality of different types of events occurring during a transaction at a POS station. (emphasis added) The tracking of these RPM records results in decomposing the transaction into a finer level of detail. Such fine details advantageously help identify deficiencies and potential problems at the POS station. For example, a record of a series of scans requiring an inordinate amount of time may indicate a scanner which needs cleaning or repair.

In the Response to Arguments section, the Official Action believes that Walker meets the claim feature of tracking a plurality of retail performance metric record for multiple events within a transaction. Although Applicants do not acquiesce to this analysis, claims 1, 7, 13, 16, 17, and

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19-20 have been amended to make more clear that multiple retail performance metrics for at least two different types of events occur within a transaction. For example, claim 1, as presently amended, reads as follows:

1. A computer implemented method of tracking a plurality of retail performance metric records for different types of events within a transaction and recording a transaction entry record, the method comprising the steps of:

receiving inputs for a plurality of different types of events occurring at a point of sale (POS) station during a transaction, wherein the types of events occurring at the POS station comprise scan operations, weighing operations, key operations, or tender operations;

recording retail performance metric records for the plurality of different types of events, each retail performance metric record associating an event type and a time related to performance of the event;

associating the retail performance metric records with a transaction entry record; and

recording the transaction entry record indicative of the transaction, said transaction entry record associating multiple retail performance metrics for at least two different types of events occurring within the transaction. (emphasis added)

Walker fails to teach and fails to suggest the features of claim 1 as presently claimed.

Walker does not disclose and does not make obvious “receiving inputs for a plurality of different types of events occurring at a point of sale (POS) station during a transaction, wherein the types of events occurring at the POS station comprise scan operations, weighing operations, key operations, or tender operations,” as presently claimed in claim 1. Walker does not disclose and does not make obvious “recording retail performance metric records for the plurality of different types of events,” as presently claimed in claim 1. Walker merely tracks whether prompts within a transaction are spoken properly. Even this limited tracking in Walker is performed in a totally different manner than the manner claimed. Walker does not disclose and does not make obvious

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a "transaction entry record associating multiple retail performance metrics for at least two different types of events occurring within the transaction," as presently claimed in claim 1. See also claims 7, 13, 16, 19, and 20.

Furthermore, unlike Walker, claims 13, 16, 19, and 20 address advantageous aspects of tracking time type categories. Claim 13, as presently amended, recites "each retail performance metric record associating a time type category and the time related to performance of the event, the time type category is a time category indicating ring time, tender time, secure time, non-sales time, idle time, or no time." Walker's disclosure is silent with respect to time type categories as presently claimed.

Additionally, to distinguish Walker further, claims 16 and 20 have been amended to further define the types of events occurring at the POS station during a transaction to comprise a scan operation, a weighing operation, a key operation, and a tender operation. (emphasis added).

Claims 4, 5, 10, 11, 14, 15, 17, and 18 were rejected under 35 U.S.C. §103(a) based on Walker in view of Green. Green fails to cure the deficiencies of Walker. Since claims 4, 5, 10, 11, 14, 15, 17, and 18 depend from and contain all the limitations of claims 1, 7, 13, 16, 19, and 20, as presently amended, claims 4, 5, 10, 11, 14, 15, 17, and 18 distinguish from the references in the same manner as claim 10.

The relied upon references fail to recognize and address the problem of tracking a multiple retail performance metrics for at least two different types of events which occur in a transaction in the manner advantageously addressed by the present claims. The claims as

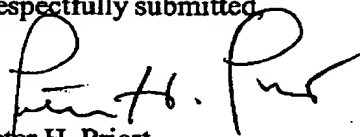
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presently amended are not taught, are not inherent, and are not obvious in light of the art relied upon.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



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